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Policy options and possible actions to expedite implementation: industrial development

Report of the Secretary-General

Summary

Industrial development has rarely occurred by virtue of free market forces alone. Government policies and investments have played an important supportive role. Policy choices are best informed by country-level diagnostics of key constraints, and Governments do have policy space to promote industrial development, diversification and upgrading, even if somewhat constrained by historical standards.

Trade can help boost industrial development, both through access to imported technologies and intermediate inputs and through the scale and learning economies of access to global and regional markets. Thus, openness of the international trade regime to developing country industrial exports is an important enabling condition.

Public investment in basic infrastructure, research and development, and education can support industrial development, especially as industries become more knowledge-intensive. Public support to venture financing can encourage greater risk-taking by entrepreneurs in exploring new product markets. Measures to encourage investments by the private sector in training of the workforce, including through public-private partnerships, can be important to facilitating technology transfer. In many situations, the specific challenges facing small and medium-sized enterprises (SMEs) — e.g., limited access to formal credit markets, weak managerial and technical know-how, poor information about markets — can be remedied through targeted government programmes and through initiatives of industry associations.

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Governments generally have basic legislation to protect the rights of workers and to safeguard the environment, but many face difficulties with implementation. The internalization by enterprises of principles of corporate social and environmental responsibility and accountability can help relieve the enforcement burden on Governments, as can an active civil society. Still, Governments would benefit from technical assistance to strengthen monitoring and enforcement capacity of workplace and environmental regulations. The use of economic instruments could in many cases help achieve sustainable industrial development goals most efficiently.

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I. Introduction

1. At its fourteenth session, the review session of the second implementation cycle 2006-2007, the Commission on Sustainable Development undertook an evaluation of progress in implementing Agenda 21, the Programme for the Further Implementation of Agenda 21, the decisions taken at the sixth session of the Commission and the Plan of Implementation of the World Summit on Sustainable Development ("Johannesburg Plan of Implementation"), while focusing on identifying constraints and obstacles in the process of implementation with regard to the current thematic cluster. This cluster covers the issues of energy for sustainable development, industrial development, air pollution/atmosphere and climate change. The report[1] of the review session includes a chairperson's summary that reflects the constraints and obstacles, and possible approaches to and best practices for the implementation of these intergovernmental agreements, as well as the way forward identified by the Ministers attending the high-level segment.

2. This report is a contribution to the discussions of the Commission on policy options and possible actions to address the constraints and obstacles in the process of implementation identified in the report of the review session with regard to industrial development. Similar reports have been prepared for the other issues of this thematic cluster and, in the light of the interlinkages among the themes, the reports should be read in conjunction with one another. The fifteenth session of the Commission on Sustainable Development will take policy decisions on practical measures and options to expedite implementation for the selected thematic cluster of issues, taking account of the discussions of the intergovernmental preparatory meeting, reports of the Secretary-General and other relevant inputs.

3. This report draws on a number of sources, including national reports and case studies submitted by Member States, the outcomes of regional implementation meetings, and contributions from major groups and secretariats of various United Nations conventions. As close linkages exist among the four issues of this thematic cluster, the relevance of these interlinkages for policy options is considered in a separate report. Although cross-cutting issues identified at the eleventh session are considered throughout the report, many are addressed in this separate report.

II. Fostering an enabling environment

4. A range of policies and practical measures at both the national and international levels could advance industrial development, which is crucial to promoting economic growth and providing sustainable livelihoods. Among the most important international policies are those that ensure unobstructed market access to the exports of developing countries.

5. Addressing market access concerns of developing countries, including tariff escalation, high industrial tariffs in some countries, and the increasing prominence of non-tariff barriers to the exports of low-income countries would help promote industrial development. Free trade access for the industrial and other exports of the least developed countries (i.e., special treatment) takes on added salience as most-favoured-nation tariffs are further reduced. Efforts to reduce tariffs and non-tariff

[1] *Official Records of the Economic and Social Council 2006, Supplement No. 9* (E/2006/29).

barriers in major markets could support the exporters of environmentally friendly goods and services, ranging from renewable energy equipment and biofuels to organic foods.

6. Strengthening aid-for-trade initiatives could help developing countries, particularly least developed countries, to build the supply-side capacity and trade-related infrastructure needed to implement and benefit from World Trade Organization Agreements. One possible international action involves providing financial and technical support to technical institutions that can facilitate compliance with international product standards. This could include the institutes, laboratories and bodies that can ensure that products, particularly of SMEs, are able to meet product quality standards, including sanitary and phytosanitary standards, as well as other requirements for export to markets governed by environmental directives or strong consumer preferences for "sustainable products".

7. At the national level, industrial development would benefit from a framework that addresses four major tasks of policy: (a) diversifying production and exports, enabling firms to cope with entry costs and addressing the coordination problems of developing new sectors; (b) upgrading technologies, organizational set-ups, design, marketing and logistics, enabling entry into more sophisticated sectors; (c) the multiplication of domestic linkages, particularly critical for export sectors and foreign direct investment (FDI); and (d) the promotion of small enterprises, which are generally employment-intensive. Some countries (the East Asian newly industrializing countries, including China) do employ active industrial policies, with some success. Strategic investments in human capital are also important to promoting industrial development with broadly shared social and economic benefits. An adequate regulatory and incentive framework can help steer industrial development along an environmentally sound path.

8. A combination of national policy measures can promote industrial development by supporting quality and productivity improvements and facilitating access to global supply chains and networks. Innovation is best understood in a broad sense as extending beyond new technology development to include technology adaptation, new market discovery and development, organizational innovation, improvements in logistics and other measures that lower transaction costs. Thus, the ability to reap the benefits from new technologies often depends on innovations in distribution and organization occurring simultaneously. A policy framework that combines access to international technology flows with strengthening of domestic innovation capabilities in all these dimensions can be conducive to industrial development.

9. Since what is a new line of business in a particular country may not be new globally and often makes use of existing technologies, measures both to facilitate access to foreign technologies on favourable terms and to strengthen the capacities of domestic firms to absorb them are important. In an effort to increase positive technology spillovers from FDI, proactive policies to promote technology transfer can play an important role. In China, for instance, the Government's technology-transfer requirements for joint ventures have allowed domestic firms to learn from more technologically advanced foreign companies.

10. Government policy can contribute to industrial diversification by reducing the risks involved in new market exploration. Favourable tax treatment for private sector research and development expenditures is one policy option. Government

support to research and development activities for promising new product and process technologies is another, assuming a conducive environment for product commercialization, such as the availability of venture capital financing and suitable protection of intellectual property. Public support to venture capital financing has had a major impact in supporting the development of non-traditional product clusters in Chile, for instance. One option would be for international financial institutions, building on the experience in Chile, the Republic of Korea, and elsewhere, to work with the Governments and private sectors of interested developing countries to build up public or public-private venture capital financing schemes to encourage greater entrepreneurial risk-taking aimed at new market discovery.

11. Experience suggests that policies that foster product diversification, in particular through strong growth of non-traditional exports, can be especially effective in supporting economic growth and rising living standards. Specific export promotion measures can be effective in encouraging diversification towards non-traditional exports with significant innovation content. These can cover a range of measures including tariff-free access to imported inputs, tax concessions, credit subsidies, the provision of serviced land and infrastructure, the development of standards, testing and certification institutions, and government-sponsored export market promotion. As the development of sophisticated products depends to a considerable degree on human capital endowments, investments in education, particularly scientific, technical and managerial education, can be crucial to efforts to enter the market for such products.

III. Enhancing the contribution of the private sector

12. Entrepreneurs in developing countries often lack financing to enter new business areas. Some policy options that address this include partial loan guarantees to encourage private financial institutions to underwrite risky industrial ventures, and favourable regulatory and fiscal treatment of venture capital funds. Many developing countries have employed favourable tax treatment of early investments in new priority sectors. Poorly targeted or overly generous fiscal incentives can, however, be counterproductive, by depriving government of much-needed revenue to finance investment in, for example, economic infrastructure, education and health. Particularly in large countries, measures to promote interregional mobility of capital could be important to achieving more geographically balanced industrial development. Powerful advantages from geographical concentration of industry are often present, which can justify fostering greater geographic mobility of labour to enable workers to move to where the jobs are.

13. Public-private sector dialogue can be effective for informing Governments of key problems facing industry and discussing policy options and practical measures to address them. Such dialogue would benefit from transparency and inclusiveness, to minimize any undue influence of regulated industry on the regulatory processor of insider dealing. Benchmarking can provide comparative information to enterprises and industries regarding their relative performance by various measures. It has been used successfully, for instance, in a negotiated agreement between Government and industry in the Netherlands, in which energy-intensive companies are committed to matching the world's best energy performance. Structured dialogues between the public and private sectors to improve the investment climate

could be set up to mobilize local businesses to target legislative and administrative roadblocks, identify solutions and press for reforms, like the Bulldozer Initiative in Bosnia and Herzegovina.

IV. Upgrading skills and technologies

14. Investments in education and skills development can promote the transition to more innovative, knowledge-based economies. Malaysia and Singapore both offer interesting models that demonstrate ways of supporting skills upgrading through a combination of measures, including a payroll tax to finance skills development, and joint public-private training institutes for specific industries and skills. Developing countries that specialize in labour-intensive manufactures might consider programmes for skills upgrading to support diversification towards more sophisticated products with higher technology content, thereby reducing dependency on labour cost advantages alone and the consequent risk of production relocation to countries with lower labour costs. Incentive schemes to encourage greater investment by firms in training to enhance the skills of their workforces can facilitate technology absorption. Thus, policies and programmes aimed at technology transfer are likely to be more effective when they have a significant skills training component.

15. The more dynamic, skill-intensive sectors of an economy are often ones that employ relatively few poor people. For example, the software and business process outsourcing industries in India and the Philippines employ mostly college graduates. Thus, it is important for poverty reduction that, wherever possible, linkages be strengthened between such dynamic industries and other sectors that employ higher proportions of less educated workers. Such linkages may take many forms. For example, some dynamic agricultural activities create demand for labour-intensive services, such as packing, which can be better remunerated than farm work. In Chile, direct smallholder participation in the fresh fruit export sector is relatively small. Still, owing to the high labour intensity of the agro-processing sector and increased employment and wages in larger farms, both of which employ unskilled labour, the agro-industrial sector has contributed to reducing poverty. For small island developing States, such activities could involve integrating agriculture and industry with tourism through agro-tourism and micro-industries for the tourist market.

16. Also the application of information technology (IT) in the manufacturing and service sectors has the potential to boost both output per worker and total employment. While some of the jobs created may be for skilled workers, as in agriculture, there can be complementarities between skilled and unskilled employment. A policy environment that ensures that domestic firms can benefit from continuous cost reductions in IT equipment could help strengthen competitiveness.

17. Other policy options exist to help ensure a broad sharing of the benefits from industrial development. These include training subsidies and public investments or public-private partnerships to provide technical education aimed at strengthening skills in a range of crafts that can be entry points to the formal job market for those with limited education. Some examples include the construction trades, agro-industries, IT equipment and software maintenance and transport equipment repair.

V. Small and medium-sized enterprises

18. Microenterprises and SMEs could benefit from policy and institutional support to help them gain access to both domestic and international supply chains. Policy options could relate to: the design and creation of SME-supportive legal and regulatory systems; facilitation of SME access to bank credit for investment in productive capacity and working capital; managerial capacity-building; and common provision of market information and promotion services for SMEs, such as through trade fairs and international trade missions. For example, Mexico's programme for industrial integration has established two centres to help SMEs identify supply chain opportunities, upgrade their capabilities, and identify and channel technical support, training and loans. While Governments provide valuable support, there is also an important role for industry associations, especially since they are most knowledgeable about the specific needs of their members. Extension programmes with outreach to women entrepreneurs could also be considered since they own and operate a significant proportion of small enterprises, particularly in the informal sector.

19. International support for SME development in developing countries can help them to compete successfully in national and international markets. In one such effort, the International Finance Corporation and the Canadian International Development Agency are supporting a trade facilitation centre for the Self-Employed Women's Association of India. This Association assists more than 15,000 women artisans in a commercial venture that promotes access to national and global markets. Also, the National Cleaner Production Centres established in a number of developing countries with support from the United Nations Industrial Development Organization and/or the United Nations Environment Programme could be further strengthened to be better able to offer technical, managerial and marketing support to SMEs seeking to introduce sustainable production methods and manufacture products competitive in international markets.

20. Financing of trade by customers or suppliers can be an important means of financial support for industries and in countries where access to credit is difficult, in particular for small and medium-sized enterprises, as the goods produced can be used as security for lenders. While such short-term credit facilities may be vulnerable in the wake of financial crises, in some cases Governments have provided preferential treatment to trade finance in debt rescheduling agreements. Governments could strengthen trade finance by, for example, providing legal standing for electronic documents to facilitate issuance of letters of credit, and for assignment of accounts receivable to facilitate borrowing against those accounts. National development banks in Brazil, Colombia and Mexico provide these types of services to facilitate export financing. Similarly, aid-for-trade initiatives could help developing countries, particularly least developed countries, to build the supply-side capacity and to expand their trade more broadly.

VI. Promoting sustainable patterns of consumption and production

21. The achievement of sustainable patterns of consumption and production (SCP) calls for a fundamental rethinking of the way societies produce, use and dispose of

products. Under the Marrakesh Process, through the work of a number of recently initiated task forces, a large number of possible actions are being considered, including some that effectively use supply chain relationships to support SMEs in their transition to more sustainable production systems, and others that help consumers make more sustainable choices through information dissemination, eco-labelling and the increased role of marketing. Some countries and regions are undertaking major SCP initiatives, notably the European Union (EU) through various environmental directives. Some of these directives have implications for EU trading partners, and developing countries could benefit from access to information and in some instances technical assistance to facilitate needed adjustments to production processes or product designs. Any such initiatives would do well to consider and minimize any adverse impacts on developing countries and their products, particularly those least able to adjust.

VII. Cleaner and more resource-efficient industrial production

22. In order to encourage cleaner and more resource-efficient industrial production, Governments have commonly employed such regulatory means as specific standards and compliance rules. Negotiated agreements with industry are also used in some instances, often backstopped by the prospect of mandatory regulation. Market-based instruments have also been used, including taxes and fees to raise the cost of unwanted waste outputs, strict enforcement of liability rules related to pollution or hazardous materials, and subsidies to stimulate cleaner technology development and adoption. Governments could also promote more sustainable production processes through the use of information strategies, such as public disclosure of industry environmental performance. Examples include the Pollution Release and Transfer Registers used in Australia, Canada, the United Kingdom of Great Britain and Northern Ireland and the United States of America, mandatory environmental reporting required in Denmark, and the Programme for Pollution Control, Evaluation and Rating employed in Indonesia. Other options include eco-labelling schemes and the organization of cleaner production competitions with high profile awards. Governments could also promote the adoption of accounting methods that explicitly measure the environmental and social costs of production, thereby better informing managerial decision-making.

23. One promising model for addressing industrial waste streams and, in particular, hazardous waste management has been adopted by the Government of Australia, which has enacted a legal framework and policies that address all aspects of industrial waste management, including generation, storage, handling, treatment, transport, recovery, recycling, reclamation and reuse. Since hazardous waste treatment facilities can be costly, Governments could choose to encourage the establishment of common treatment facilities shared by multiple enterprises in a given geographic area, with operating costs covered from waste charges. Public-private partnerships, possibly involving low-interest loans or loan guarantees, could be used to facilitate construction.

24. Hazardous substances are also a concern in the workplace. Governments are well positioned to support a healthy and safe work environment, including through requirements of equipment design, employer-provided protective gear, well-functioning environmental-risk monitoring and emergency response systems, and in-plant health and safety committees. Corporations bear responsibility for the sound

management of industrial hazards, by informing workers and the public of risks, and involving workers and their organizations, as well as adjacent communities, in decision-making on risk management and reduction. One example involves the footwear industry in Viet Nam, where a partnership between Viet Nam Chamber of Commerce and Industry, local trade associations and international buyers has engaged almost two thirds of footwear manufacturers in efforts to raise health and safety standards. By raising worker productivity and reducing absenteeism and turnover, there was a significant benefit to Viet Nam in increased international orders.

VIII. Corporate environmental and social responsibility and accountability

25. Within the private sector, global supply chains are an increasingly important transmission mechanism for codes of corporate environmental and social responsibility and accountability. Many of the multinational corporations, which are members of, for example, the United Nations Global Compact and the Global Reporting Initiative, work with their suppliers, including those in developing countries, to align their management practices with such codes. Often, adherents to such codes of conduct are industry leaders in sectors with high public visibility, either because they are producing consumer products for socially and environmentally aware consumers or because they operate in industries with potentially large social and environmental impacts, such as the extractive industries. The reach of corporate environmental and social responsibility and accountability practices within and across sectors could be further expanded. To the extent that corporate environmental and social responsibility and accountability breeds financial success, this could occur as a matter of course, but government policy can assist through the encouragement and enforcement of ethical, environmental and governance standards for all corporate entities.

26. For developing countries, encouraging corporate environmental and social responsibility and accountability is one possible action to help domestic enterprises gain access to international markets, improve regulatory compliance and enforcement, support achievement of social and environmental goals, and enhance modernization of production processes and management systems. One approach could be a tripartite agreement such as the one involving the Cambodian Government, the garment industry and the International Labour Organization to implement a countrywide programme that monitors factory compliance with minimum labour standards. Strongly encouraging foreign investors to adhere to a widely recognized CSR code, such as the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy of the International Labour Organization, could be another policy option. Support could be provided to SMEs to enable them to align with the CSR policies of their international consumers. In this regard, one policy option would be to subsidize partially the cost to SMEs of CSR certification, and one practical measure would be to strengthen the Marrakesh task force on sustainable enterprises as a mechanism for international experience-sharing on how best to facilitate the linking of SMEs to sustainable global supply chains.

IX. Policy options and possible actions at the international level

27. **Policy options and possible actions that could be considered at the international level to support developing countries' efforts to achieve industrial development include:**

- **Working towards a multilateral trade regime that provides greater opportunities for developing countries to expand their industrial and other processed exports and to diversify and upgrade their export product mix;**
- **Building trade and production capacity in developing countries, particularly least developed countries, to enable them to respond with an effective supply to new export opportunities;**
- **Strengthening capacities of developing country Governments to support the structural transformation and diversification of their economies through a variety of policies and institutions aimed at building technological and entrepreneurial capabilities;**
- **Encouraging the international financial institutions to work with the Governments and private sectors of interested developing countries to build up venture capital financing schemes to support new market discovery;**
- **Supporting the educational and training systems of developing countries in the creation of skilled workforces capable of effective technology absorption, adaptation and development;**
- **Providing technical support to develop and strengthen technical institutions, such as metrology institutes, testing laboratories and certification bodies, to facilitate compliance with international product standards;**
- **Strengthening programmes of technical and financial support to SMEs with a view to facilitating their access to domestic markets, including through integration into global supply chains;**
- **Providing technical assistance to developing countries in streamlining and rationalizing licensing, regulatory, fiscal and other measures related to industry that affect risks to private investment and the costs of doing business;**
- **Encouraging wider adherence by industrial enterprises as well as by corporate and government buyers of industrial products to codes of good practice with respect to CSR;**
- **Supporting the work of the task forces of the Marrakesh Process and efforts to elaborate a 10-year framework of programmes on sustainable consumption and production, in particular the work on building sustainable enterprises.**